

STEREO MOC Status Report
Time Period: 2014:188 - 2014:194

STEREO Ahead (STA) Status:

1. The following Ground System anomalies/events occurred during this reporting period:

- On day 193, during the DSS-55 support, the receiver and ranging processor dropped out between 1109z and 1111z. This anomaly resulted in the loss of 811 frames of SSR data. See DR #M108145 for more information.
- On day 194, DSS-63 declared the receiver orange due to an the inability of the cryogenic system to maintain the SNT. This anomaly degraded the downlink signal by 10 dB, resulting in the loss of real-time telemetry and ranging data for the duration of the 4.5 hour support. SSR pointers were repositioned on the following support. See DR #M108149 for more information.

2. The following spacecraft/instrument events occurred during this week:

- On day 188, the 69th momentum dump was executed successfully at 0945z, which imparted a delta V of 0.104 m/sec.
- On days 188 through 192, HGA side lobe operations, superior solar conjunction operations, including entry and exit, were successfully tested on the Ahead observatory. The actual flight configuration and procedures were used with the exception of the SSR configuration and instrument real-time telemetry for side lobe operations. The Ahead observatory was returned to operational mode and all instruments resumed science data collection by 192-1505z, with the exception of the high voltage ramp up of the IMPACT SIT instrument, which is scheduled for day 195. The test validated the solar conjunction observatory configuration to ensure that the spacecraft and instruments remain safe, including the HGA feed, and that the necessary engineering data can be recorded to analyze performance during the actual solar conjunction communications blackout period. This test provided valuable operational results and generated the following four significant issues:

1. IMU will remain on for three days after a star tracker failure to promote to AAD mode anomaly. Systems is investigating. CR-6832 documents.
 2. Ranging signal is intermittent on HGA side lobe operations. Subsequent FDF analysis indicated that Doppler data can be used to meet navigation requirements.
 3. G&C routine SSR partition will overwrite after two days. The planned SSR reconfiguration to resize the spacecraft partitions for the duration of the second side lobe period, which also includes the instrument science partition reconfiguration, is being developed.
 4. Nearly constant fine pointing loss upon recovering G&C and enabling GT usage. G&C is investigating.
- The average daily SSR playback volume for Ahead was 2.2 Gbits during this week.

STEREO Behind (STB) Status:

1. The following Ground System anomalies/events occurred during this reporting period:
 - On day 189, during the DSS-55 support, turbo decoder lock was lost intermittently at 0956z and again at 1410z. This anomaly resulted in the loss of five frames of SSR data.
 - On day 190, during the DSS-45 support, telemetry lock was lost intermittently beginning at 0226 through 0310z due to heavy rain. This anomaly resulted in the loss of 18,870 frames of SSR data. See DR #C110351 for more information.
2. The following spacecraft/instrument events occurred during this week:
 - On day 188, IMPACT successfully loaded a flight software patch to LET to reduce telemetry generation in preparation for HGA side lobe operations.
 - The average daily SSR playback volume for Behind was 2.8 Gbits during this week.